

MA-W-110/120 – Univariate Time Series Econometrics

Virtual format - Course overview

Description This course deals with time series econometric methods that are mainly applied to the fields of macroeconomics and finance. The lecture and the tutorials will be held in English. Foundations in mathematics and statistics are essential. Models of univariate stationary and non-stationary processes will be presented. Students learn methods and tools for analyzing time series and apply them in computer tutorials to recent, real world data.

The course will be held within the first weeks of the semester. In a very compact form, the time series bootcamp will cover many lecture hours in a fairly short period of time. Note, however, you will have that course finished very quickly, too. Topics include:

- ARMA processes
- Persistent processes
- Integrated and co-integrated processes

Lecturers Lectures will be held by PD Dr. Till Strohsal; tutorials will be led by Niels Aka.

Recommended literature

- Kirchgässner, G., J. Wolters und U. Hassler (2013): *Introduction to Modern Time Series Analysis*, Springer-Verlag.
- Enders, W. (2004): *Applied Econometric Time Series*, Wiley & Sons.
- Lütkepohl, H. (2007): *New Introduction to Multiple Time Series Analysis*, Springer-Verlag.
- Hamilton, J.D. (1994): *Time Series Analysis*, Princeton University Press.

Formal issues The course accounts for a total of 6 ETC credits. The course can be taken via modules "Econometric Methods and Applications I", MA-W-110, MA-W-120 or MA-M-210. Taking the course via different modules is not possible, unfortunately. The course is primarily intended for masters students in Economics.

Exam The 90-minute exams for the course will take place at 11th December 2020 at 14:00 in S13. In the tutorials, students collect extra points for the exam based on their graded presentations.

Time schedule and rooms Due to the strongly increasing number of new infections with the corona virus, the course has a virtual format. As to the lectures, audio-tracked slides (same explanations as in a conventional lecture) will be provided. The exercise will contain both, live video sessions and audio-tracked material. Lecture and exercise material will be accessible until the exam.

We will start the first lecture on 19.11.2020 with a live video session from 13:00 to 14:00, so that we can get to know each other and discuss in detail the course format. The first tutorial will be on 20.11.2020. For both the lectures and the tutorials we will also offer regular office hours in order to provide the possibility for asking questions and discussing course content.

	Tuesday	Thursday	Friday
16.11.20 - 20.11.20	-	Lecture**	Tutorial***
23.11.20 - 28.11.20	Tutorial*	Lecture**	Tutorial***
30.11.20 - 04.12.20	Tutorial*	Lecture**	Tutorial***

* 15:00-18:00

** 13:00-18:00

*** 14:00-17:00